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Mr. Jose A. Morales
Refinery Manager
Puerto Rico Sun Oil Company
P.O. Box 186
Yabucoa, PR 00767

Re: Technical Review of the April 20, 1998, Revised Part B Permit Renewal Application and Response to EPA's November 14, 1997 Notice of Deficiency
Puerto Rico Sun Oil Company
EPA I.D. Number: PRDD 090 074 071

Dear Mr. Morales:

The United States Environmental Protection Agency (EPA) has completed its review of the Puerto Rico Sun Oil Company (PRSOC) Revised Part B Permit Renewal Application dated April 20, 1998. This submittal was in response to EPA's November 14, 1997, Notice of Deficiency (NOD). EPA has found the document to be incomplete. The revised Application partially addressed the NOD. Attached are comments detailing the technical deficiencies in PRSOC's Revised Part B Permit Renewal Application that must be addressed.

Please submit the requested information to EPA within 60 days from the date of receipt of this letter. Please note that an extension to this deadline will not be considered unless an adequate justification is provided 10 days before the deadline.

It should be noted that the review of financial assurance package will be send to PRSOC under a separate cover letter since the document is still under review.

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If you have any questions, please contact Sam Abdellatif, of my staff, at (212) 637-4103.

Sincerely yours,

Nicoletta DiForte, Chief
Caribbean Section
RCRA Programs Branch

Enclosure

cc: Carl A. Soderberg, EPA-CFO w/encl.
Israel Torres, PREQB w/encl.

PUERTO RICO SUN OIL COMPANY
PRD090074071
PART B PERMIT APPLICATION

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TECHNICAL REVIEW OF FACILITY'S
RESPONSE TO EPA NOTICE OF DEFICIENCY

A. PART A APPLICATION: 270.10(d), 270.11(a) and (d), 270.13

Part A application is provided in Appendix A. The waste codes listed in Section XII are not consistent with the waste codes mentioned in the General Facility Description Section, the Waste Analysis Plan, and the Closure Plan.

For example, Section 2.5 under Preventive Procedures, Structures, and Equipment describes a "pyrophoric spent catalyst material which reacts in the presence of O_2". According to 40 CFR 261.23(a)(1), the definition of reactive waste is that "...it is normally unstable and readily undergoes violent change without detonating." Since this material reacts with O_2, it is considered a reactive waste, especially if the material must be stored in a container with special inert blankets. This waste must be specified in the Part A as a reactive waste. Revise the Part A application, the General Facility Description, the Waste Analysis Plan, and/or the Closure Plan to include the same waste codes.

PRSOC's Response: *The spent catalyst described above, spent hydrotreater catalyst, has been proposed by EPA to be listed as hazardous waste - K171. The regulation was proposed on November 20, 1995 and is scheduled to be promulgated as a final rule in May 1998. In the revised Part B, the catalyst is referred to as K171. PRSOC may generate other spent catalysts which may exhibit pyrophoric characteristics. The preamble to the above referenced regulation characterized spent pyrophoric catalyst as ignitable - not reactive. In fact, K171 is listed a hazardous waste due to its toxic and ignitable properties. Therefore, PRSOC will continue to classify other spent pyrophoric catalysts as ignitable wastes. Appropriate sections of the Application, including the General Facility Description, the Waste Analysis Plan and the Closure Plan, have been revised to ensure consistency.*

EPA'S Response: *The facility's response to this comment is adequate.*

B. FACILITY DESCRIPTION

B-2a General Requirements: 270.14(b)(19)

Many of the figures included in the document are illegible. Specific maps/figures/aerial photos of poor quality include Figures B-1, B-3, C-1, C-3, D-1, D-2, E-2, E-3, E-4, F-1,

F-2, I-2, J-3, L-1, L-4A, L-6, L-7, and M-3B. In addition to poor quality, dates, scales, and/or legends are either not provided, or did not fit on the copied figures. Other figures do not include the appropriate units or are out-of-date. For example:

- The aerial photos (e.g., Figure C-1) are not legible. Scales and dates are not on the copied versions. The photos do not appear to be up-to-date or include the appropriate units. The legends and keys are also not readable. The large topographic map, Figure C-3, does not clearly delineate the location of the HWMU or the proposed modification.
- The large topographic map, Figure C-3, does not clearly delineate the location of the HWMU or the proposed modification.
- Appendix D maps are not of use. The discharge map needs to cover the facility area, not the surrounding area. The portion of the document referring to the Flood Map (Section 1.9) mentioned flood control ditches, berms, etc. These structures need to be addressed in the Appendix D maps.
- Figure F-1, the land use map, needs to include scale, date, legend, north arrow, etc.
- The Wind Roses (Appendix G) are dated 1980 - 1982. More recent information needs to be provided.

Include figures in the Part B application that are recent, legible, and include scales, dates, legends and the appropriate units. Topographic maps must include contours sufficient to show surface water flow in the vicinity of, and from, each operational unit. The maps must include map date, 100-year floodplain area, surface waters, surrounding land uses, a wind rose, map orientation, and legal boundaries of the facility site. The maps must also indicate the location of access control, injection and withdrawal wells, buildings, structures, sewers (storm, sanitary, and process), loading and unloading areas, fire control facilities, flood control or drainage barriers, run-off control systems, and (proposed) new and existing hazardous waste management units and solid waste management units.

PRSOC's Response: *PRSOC has revised a number of the topographic maps and drawings discussed above to ensure that this Application satisfies the requirements for topographic maps set forth at 40 CFR 270.14(b)(19). However, it is important to note that many of the maps and drawings included in the 1995 Par B Permit Application exceeded the requirements of 40 CFR 270.14(b)(19). These maps/drawings were intended to provide additional information (above and beyond that required by the regulations) which may be helpful to the permit writer in reviewing the Application. In these cases, PRSOC provided the best copy of the map/drawing available. However, in some cases, maps/drawings were not of optimum quality. EPA should use these maps to the extent they are helpful. Otherwise, they should be disregarded.*

PRSOC has revised only those maps/drawings necessary to achieve compliance with the standards of 40 CFR 270.14(b)(19). These maps as well as other maps discussed above, are described fully in Section 1.8 of the Application. Of the 18 maps/drawings listed in EPA's comment, the following eight have been revised or replaced; C-1, C-3, D-1, E-4, F-1, I-2, J-3 and L-4. The following nine have not been revised since they are not required to satisfy the standards of 40 CFR 270.14(b)(19): B-1, B-3, D-2, E-2, E-3, F-2, L-1, L-6 and L-7. M3B does not require revision as described below.

Responses to specific issues raised in EPA's comment are provided below:

- *The aerial photo provided in Appendix C-1 has been replaced. The new photo illustrates the layout of the Refinery Area. Drainage patterns can also be clearly identified in the photograph. The aerial photo presented in C-2 is not required to be submitted under 40 CFR 270.14(b)(19). This is the best copy available and will not be revised.*

- *The location of the HWSA has been incorporated onto Appendix C-3. Further detail is presented in revised figures included in Appendix J.*

- *The map presented in Appendix D-1 which shows the location of withdrawal wells (there are no injection wells) in the vicinity of the PRSOC facility has been replaced. The new version provides all required information. Appendix D-2, which provides the locations of monitoring wells at PRSOC, is not required under 40 CFR 270.14(b)(19)(ix) and will not be revised. The 100-year floodplain map provided in Appendix E-1 has been replaced. The new version provides all required information. Regional flood maps provided in Appendix E-2 and E-3 are not required under 40 CFR 270.14(b)19)(ii) and will not be revised. Location of flood control ditches, berms, etc. are presented in Appendix C-3 and E-4.*

- *The Land Use Map presented in Appendix F-1 has been replaced. The new version provides all required information.*

- *PRSOC has provided the most recent wind rose available (i.e., 1980-1982). There is no reason to believe that wind patterns in the region have changed. For example, there have been no changes in topography and no new engineered structures which would significantly impact regional wind patterns. Furthermore, local wind patterns have no bearing on PRSOC's container storage area achieving compliance with applicable standards (i.e., 40 CFR 264 Subpart I). Therefore, PRSOC proposes that development of an updated wind rose is not warranted.*

- *Appendix M-3B clearly shows the location of the safety shower/eye wash station that serves the Hazardous Waste Storage Area and thus will not be revised.*

EPA's Response: *The facility's response to this comment is adequate.*

B-4 Traffic Information: 270.14(b)(10)

The traffic information provided in the Traffic Controls Section 1.19, pp. 18-19 and in Appendix L is incomplete. Provide the following traffic related information:

- Traffic patters on-site;
- Estimated volumes, including number and types of vehicles;
- Traffic control signs, signals, gates, speed limits, and procedures;
- Adequacy of access surfaces and load-bearing capacity for expected traffic on-site.

If shown in a map format, ensure that the figures meet the criteria set forth in Comment B-2a.

PRSOC's Response: *Section 1.11 (formerly Section 1.19) of the Application has been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

C. WASTE CHARACTERISTICS

The second bullet on page 80, section 6.2 states that TC waste (D018) is generated in the process area and discharged to the wastewater treatment area where it is handled in exempt units. Provide the proper name of the units that have been exempt to avoid confusion between the recently closed equalization basin and the newly installed equalization tanks designed to replace the equalization basin.

PRSOC's Response: *Section 1.6 of the Application has been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

Section 2.5 of the General Description section of the Part B Permit Modification describes D018 waste generated at the facility as potentially exhibiting the characteristics of reactivity based on the definition of a pyrophoric spent catalyst material which reacts in the presence of O_2. According to 40 CFR 261.23(a)(1) the definition of reactive waste states: "it is normally unstable and readily undergoes violent change without detonating." If the D018 waste reacts with O_2 then the waste is considered a reactive waste, especially if the waste material must be stored in special containers with inert blankets. Expand the text to describe the conditions at the facility which make D018 waste pyrophoric, its reactivity in the presence of O_2, and any special handling and storage requirements.

PRSOC's Response: *Section 2.5 does not state that D018 waste exhibits a potential characteristic of reactivity. Rather, it states that a certain spent catalyst exhibits a pyrophoric characteristic (i.e., heat generating in the presence of O2) and is consequently classified as ignitable (D001). See response to EPA's first comment for further discussion.*

EPA's Response: *The Part A and the Waste Analysis Plan, page 6 and Table 1, have been modified to address this waste. The facility's response to this comment is adequate.*

C-1 Chemical and Physical Analysis: 40 CFR 270.17(a), 264.13 (a)

Several inconsistencies exist between the waste codes provided in the Part A permit application and those specified in the Waste Analysis Plan, section 6.0. Please review both the Part A and Waste Analysis Plan and ensure that all waste analysis codes listed in the Part A are adequately addressed in the Waste Analysis Plan. Refer to comment C-2d third paragraph below for additional information.

PRSOC's Response: *Appropriate sections of the Application, including the General Facility Description, the Waste Analysis Plan and the Closure Plan, have been revised to ensure consistency with the Part A.*

EPA's Response: *The Part A and WAP have been modified to provide consistent information. The facility's response to this comment is adequate.*

On page 71, bullet no. 3 of the waste analysis plan, the last sentence of the third bullet states: "as outlined in Section 6.8 of this plan, the PRSOC will follow the validation procedures, where applicable, as required by the U.S. EPA." The current copy of Section 6.0, Waste Analysis Plan, does not include Section 6.8. Provide a copy of the missing section or provide additional information regarding data validation and QA procedures which will be adhered to during the sampling and analysis of wastes generated at the PRSOC site.

PRSOC's Response: *The Waste Analysis Plan (WAP) has been completely restructured to comply with EPA guidance entitled "Waste Analysis at Facilities That Generate, Treat, Store and Dispose of Hazardous Wastes, A Guidance Manual," OSWER 9938.4-03, April 1994. Information regarding sampling and analytical QA/QC procedures is provided in the revised WAP and is consistent with the requirements of the referenced guidance.*

EPA's Response: *The facility addressed this comment in Section IV.A of the WAP and also in SOP 001 and 002. The facility's response to this comment is adequate.*

Page 73, section 6.2 of the WAP identifies seven waste streams which are generated at the facility. However, section 6.5 of the WAP provides a description of the waste characterization for two different types of waste only: a drum sample and sludge samples. Clarification regarding which wastes are sampled as drum samples, sludge samples or other media, including waste characterization (analysis) for all waste streams, must be provided.

PRSOC's Response: *Section III of the revised WAP provides information on procedures for sampling each type of hazardous waste generated at PRSOC.*

EPA's Response: *Section III and SOPs 001 and 002 discuss sampling procedures. The facility's response to this comment is adequate.*

The first sentence on page 82, section 6.2 states that a copy of the most recent laboratory analytical results for the hazardous waste stored at the facility is provided in Attachment Q. However, Attachment Q provides analytical data for years 1990 and 1992 only. Provide more recent data from 1995 and 1996 in order to review current waste constituents and verify statements made in the WAP regarding constituent levels below action levels.

PRSOC's Response: *The waste analysis data previously provided in Attachment Q is the most recent data available. As described in the Waste Analysis Plan, PRSOC relies on process knowledge to characterize the vast majority of hazardous waste generated at the facility.*

EPA's Response: *The facility's response to this comment is adequate.*

C-2 Waste Analysis Plan: 40 CFR 270.14(b)(3), 264.13(b) and 264.13(c)

As specified in 40 CFR 264.13(a)(3)(I), the Waste Analysis Plan should include a procedure in place in order that the owner/operator of a facility will be immediately notified that the waste generation process or operation has changed. Section 6.4 of the WAP states in the second and third sentences that the amount and composition of wastes generated at the PRSOC are expected to remain constant given the consistency of refinery operations, and that all wastes listed under Section 6.0 of the WAP are periodically analyzed for ignitability, corrosivity, reactivity and toxicity to ensure continued compliance with RCRA. However, criteria to evaluate waste change information and procedures for handling wastes proven unacceptable by the disposal facility are not provided. Expand the text in section 6.4, page 83, to discuss all the criteria that will be used to evaluate waste change information as well as procedures in place should a disposal facility refuse to accept waste generated from PRSOC.

PRSOC's Response: *Section IV.A of the revised WAP provides the requested information.*

EPA's Response: *The facility's response is adequate.*

The information provided in section 6.6.5, page 93, Data Validation, provides a very generic overview of the QA program for sampling and analysis conducted for wastes generated at PRSOC. In addition, this section gives a definition of the purpose of a Quality Assurance Program Plan (QAPP) including the ability to conduct data validation following the protocols set forth in the QAPP. However, this section does not provide the specific QA/QC procedures that will be followed by the facility for the waste samples collected and stored in the HWSA. The only detailed quality assurance document is the QAPjP provided in Appendix T of the permit modification for the Groundwater Monitoring program established as part of the closure of the equalization basin. Specifically, this waste analysis plan submitted with the permit modification does not provide any information regarding number of samples collected, and associated QC samples required, or the scope of the data validation to be performed, if any. The current WAP states only that QA/QC procedures at the laboratory will follow method SW-846 and other approved EPA methods. For purposes of this WAP this statement is inadequate and does not provide sufficient detail to ensure that the facility is obtaining the level of quality data needed to allow for decisions to be made regarding the storage and disposal of the waste generated at PRSOC. The current text only implies that data validation will be conducted, however SW-846 methods do not specifically require data validation.

Remove vague references to data validation and QA plans and discuss in specific terms the QA/QC protocols and data evaluation criteria which will be conducted for the waste samples collected as outlined in this WAP. In addition, the following information should also be incorporated into the QA/QC section of this WAP: use of field logbooks for sample collection, method of containment and preservation, internal lab procedures for documenting path of sample through labs, disposal of remaining sample upon completion of analysis, inspection of lab equipment, maintenance, scope of review of the analytical data, etc. Information provided in the WAP should be similar in format to the information provided in the QAPjP for the groundwater monitoring.

PRSOC's Response: *The QAPjP included in Appendix T does not apply to waste analysis and has been deleted from the Part B Application. The revised WAP includes specific QA/QC protocols for hazardous waste sampling. These protocols are presented in the Standard Operating Procedures for sample collection included in Attachment A of the WAP. All waste samples will be sent off-site to an independent laboratory for analysis. Section IV.A also describes data validation procedures to be employed by PRSOC when reviewing analytical results. Presentation of these QA/QC procedures in the WAP is consistent with the above-referenced guidance, including model WAPs presented therein.*

EPA's Response: *The facility's response to this comment is adequate.*

C-2a Parameters and rationale: 264.13(b)(1)

Section 6.5.2, page 89 provides an overview of the sampling and analysis of spent catalyst generated at the facility. Expand the text in this section to provide more detailed information regarding the sampling and analysis of the spent catalyst. Specifically, provide additional information regarding frequency of waste disposal, storage location of any waste containers generated, and the approximate number of random grab samples taken from the containers of spent catalyst including a discussion of how the determination is made that a representative sampling of the waste has been obtained.

PRSOC's Response: *Section 1.5.2 of the Application provides the requested information. Please note that, in accordance with referenced EPA guidance, sampling and analysis of non-hazardous waste is not addressed in the revised WAP.*

EPA's Response: *The facility's response to the comment is adequate.*

On page 90 of section 6.5.4 in the application information is provided on the generation and storage of non-hazardous waste identified as bio-sludge and spent lime. In addition, the text states that sampling and analysis of the bio-sludge and spent lime are conducted periodically to ensure the waste is not hazardous. Expand the text in this section to provide more detailed information regarding the storage, sampling and analysis of the bio-sludge and spent catalyst. Specifically, provide additional information regarding description and dimensions of the stockpile area, frequency of waste disposal and pick-up for transport and disposal at an off-site facility, amount of waste disposed in the stockpile area prior to pick-up, and frequency and number of random grab samples taken from the stockpile area. In addition, as part of the analytical data provided in Appendix Q include a copy of the most recent analytical test to verify constituents in the bio-sludge and spent lime are non-hazardous.

PRSOC's Response: *Section 1.5.2 of the Application provides the requested information.*

EPA's Response: *The facility's response to the comment is partially adequate. Section 1.5.2 indicates that copies of available analytical results for non-hazardous waste are presented in Appendix Q-1. However, Appendix Q-1 only provides analytical results for the biological sludge, and not for the spent catalyst or the lime sludge. Section 1.5.2 indicates that the turn around time for the spent catalyst is every two to five years, and a single composite sample is taken for the entire batch. Therefore, an analytical result for the spent catalyst should be more recent than the 1992 time frame. Provide this information. In the same section (1.5.2) the application indicates that lime sludge is sampled "once every two years for full TCLP analysis". Provide the most recent analysis of lime sludge, this information was not provided in Appendix Q-1.*

Include in Table 6-2 a waste description for wastes D018 and F037 and F038. It is also recommended that the table be expanded or another table developed that provides information regarding estimated number of samples collected, the analytical method used, any QC samples collected, etc. Refer to Table: Summary of Ground-Water Sampling Parameters and Methods of Analysis, provided in Appendix T QAPjP.

PRSOC's Response: Appropriate tables have been incorporated into the revised WAP to provide the requested information.

EPA's Response: *Additional tables have been provided in the WAP which addresses the comment. The facility's response to the comment is adequate.*

C-2d Frequency of Analysis

The third sentence on page 81, section 6.2, states that every two years, samples of the sludge produced in the WWTS are collected and analyzed for certification and approval as a non-hazardous waste. However, the final sentence states that the sludge is recertified annually by the disposal facility to ensure that it is not hazardous. Correct the text to clearly identify how often the disposal facility analyzes PRSOC waste samples to determine whether they are hazardous, and if necessary correct this information on Table.

PRSOC's Response: *Section 1.5.2 of the Application provides the requested information regarding sampling frequency of biosludge and other non-hazardous waste. Frequency of sampling of hazardous waste is discussed in the revised WAP.*

EPA's Response: *The facility's response to this comments in Section 1.5.2 is adequate.*

C-3b Notification, Certification, and Record keeping Requirements

Following the protocols set forth in 40 CFR 264.73; 268.7 and 268.9 (d), the waste analysis plan must present procedures for preparing and/or maintaining applicable notifications and certifications to comply with land disposal restrictions. The current waste analysis plan does not address these issues. Minimal information regarding transportation of waste documentation is provided in pages 40 to 44 of the general section of the permit modification. Expand the text of the WAP to discuss procedures for preparing and /or maintaining notifications in compliance with land disposal restrictions.

PRSOC's Response: *Section VI.C of the revised WAP provides the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

D. PROCESS INFORMATION

Sections 3.2.1 and 3.2.2 (pages 40 and 41) of the permit application state that the existing "backyard area" that is used to store roll-off containers consists of a 100 mil HDPE liner overlain by four inches of asphalt. However, Section 3.2.2 (41) states that PRSOC is proposing to upgrade the Hazardous Waste Storage Area (HWSA) by expanding and replacing the existing asphalt pad with a lined concrete pad. The removal of the asphalt pad and 100 mil HDPE liner from the backyard storage area constitutes closure of a portion of the interim status unit. Therefore, provide a closure plan for the existing interim status backyard storage area including a detailed description of the activities to be conducted to clean close the unit. Ensure that the closure plan provides an adequate description of how the existing asphalt pad will be cleaned, sampled and analyzed to verify clean closure and physically removed from the facility. Also, describe how the HDPE liner will be disposed and the sampling and analysis that will be conducted on the soil beneath the unit to demonstrate clean closure.

PRSOC's Response: *PRSOC is not proposing to close the outdoor portion of the Hazardous Waste Storage Area. Rather, PRSOC is proposing to upgrade that area to achieve compliance with container storage area requirements set forth at 40 CFR Part 264. The existing HDPE liner and asphalt pad will be removed as described in Section 3.3.2.3 in order to accommodate the concrete pad which is being proposed. The HWSA, including subsoils, will be subject to compliance with appropriate closure standards when the upgraded unit is removed from service.*

EPA's Response: *The facility's response to this comment is partially adequate. The facility's response indicates that the HWSA, including subsoils, will be subject to compliance with appropriate closure standards when the upgraded unit is removed from service. However, based on information provided in Section 9.5.2, Sampling and Analytical Plan (page 9-15) of the Closure Plan, soil samples from beneath the concrete pad will be collected and analyzed <u>only</u> if the concentrations of constituents in the concrete are above the health risk-based concentrations. Thus, potential release to soil through the existing pad in the existing backyard area will not be evaluated during closure. Revise the closure sampling plan to indicate that soil sampling <u>will</u> be conducted at the time of closure, regardless of the results of the concrete sample analysis.*

D-1a(1)<u>Description of Containers</u>: 264.171, 264.172, 270.14(b)(1)

The permit application does not provide an adequate description of the containers that will be used to store hazardous wastes. Section 3.2.2 (page 41) and Section 3.4.2 (pages 46 and 47) indicate that all hazardous waste will be stored in suitable containers such as 55-gallon drums, bags and roll-off dumpsters. However, the permit application does not provide a detailed description of these containers. The facility shall use containers made of or lined with material which well not react with, and are otherwise compatible with,

the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired.

Revise the permit application to provide the following information about the containers used to store hazardous waste: approximate number of each type of container, materials of construction, dimensions and usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels.

PRSOC's Response: *A new section 3.2 has been added to the Application to provide additional information on containers used to store hazardous waste.*

EPA's Response: *The facility's response to this comment is adequate. However, Section 3.2.1 of the Application states that "PRSOC personnel evaluate the compatibility of each waste with steel drums using the waste compatibility chart presented in the Waste Analysis Plan presented in Section 6.0. This chart was not found in Section 6.0 or Appendix Q of the application.*

D-1a(2)Container Management Practices: 264.173, 264.176, 264.177

Section 3.2.2 of the permit application does not provide an explicit description of how waste containers will be appropriately managed within the HWSA. Revise the permit application to provide a detailed description of the container management practices used to ensure that hazardous waste containers are always kept closed during storage, except when adding or removing waste, and are not opened, handled, or stored in a manner that may cause them to rupture or to leak.

PRSOC's Response: *A new section 3.4 has been added to the Application to provide additional information on container management practices.*

EPA's Response: *The facility's response to this comment is adequate.*

The facility shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. Those holding incompatible wastes shall be separated. Transfer and consolidation of incompatible hazardous wastes should be taken into account Container Management Practices. Please explain to the Agency how you plan to transfer incompatible wastes from one container to another and do you have an established procedure to determine the compatibility of hazardous wastes before storing them within the same container.

PRSOC's Response: *PRSOC does not manage incompatible wastes. Section VI.B of the Waste Analysis Plan describes procedures for evaluating wastes for incompatibility.*

EPA's Response: *The facility's response to this comment is partially adequate. PRSOC has not provided the basis for the statement that "PRSOC does not manage incompatible wastes." However, the procedure described in Section VI.B of the Waste Analysis Plan is adequate to safeguard against managing incompatible wastes in a container. Section 6.0 of the Application references Attachment Q for the location of the Waste Analysis Plan. However, the Waste Analysis Plan is presented Appendix Q and not Attachment Q. Please provide the correct reference for the Waste Analysis Plan location.*

Also, describe the aisle space that will be maintained between rows of containers and explicitly state the maximum number, volume, and stacking height of containers for each area in which containers will be stored.

PRSOC's Response: *Section 3.4 of the Application provides the requested information. In addition, Figure 3-6 illustrates aisle space in the Hazardous Waste Storage Area.*

EPA's Response: *The facility's response to this comment is adequate. The new Section 3.4 of the Application and new Figure 3-6 provide the requested information.*

D-1a(3)(a)Requirement for the Base or Liner to Contain Liquids: 264.175(b)(1)

Section 3.2.2 (page 41) and Section 3.4.3 (page 47) of the permit application describe the liquid storage area (LSA) of the proposed HWSA and state that the concrete floor will be sufficiently impervious to contain leaks, spills, and accumulated precipitation until the accumulated material is properly removed. However, this statement is not acceptable for the storage of liquid hazardous waste since it does not appear that a coating or sealant is proposed for the surface of the concrete. A concrete surface that is not coated is not considered impervious to many liquid hazardous constituents and will not provide a base suitable for containing liquids. It is presumed that the HDPE liner beneath the concrete of the backyard area has been proposed due to the difficulties that would be encountered in maintaining a surface coating or sealant on concrete surface in an area used to manage roll-off dumpsters. However, from Figure 3-1, it appears that only 55-gallon drums of liquid waste will be managed in the LSA. Revise the permit application to include the use of an appropriate coating or sealant on the surface of the concrete in the LSA portion of the HWSA to ensure that the surface is impervious to the liquid waste that will be managed in the unit. Alternatively, provide a proposed design for the installation of a leak detection and collection system between the concrete base of the LSA and the HDPE liner to ensure that liquids will not accumulate on the liner.

PRSOC's Response: *The entire upgraded portion of the HWSA will be underlain with an HDPE liner. Installation procedures, including construction quality assurance procedures, are presented in Section 3.3.2.4 and Appendix J-4.*

EPA's Response: *Although the installation of the HDPE liner beneath the concrete base of the containment system as proposed in the permit application will help prevent downward migration of any liquid that leaks through the concrete, the HDPE liner will not prevent*

- *Migration of contamination due to leaks or spills into the mass of the concrete which could create concern while attempting to clean close the unit.*
- *Migration of spills or leaks through expansion joints in the base.*
- *Lateral migration of contamination along the interface of the concrete and the HDPE liner into the surrounding soil since the edge of the HDPE liner, as currently designed, slopes down and away from the building.*

Revise The permit application to include engineering and design information which shows how these issues will be addressed during construction of the unit.

D-1a(3)(a)Requirement for the Base or Liner to Contain Liquids: 264.175(b)(1)

The permit application does not provide an adequate description of the design and construction of the base of the LSA to demonstrate that the structural integrity of the liner and concrete is adequate for the proposed function. Revise the permit application to address the following issues:

a. Section 3.4.3 (page 47) of the permit application indicates that the concrete base of the LSA will be underlain by an HDPE liner no less than 40-mil in thickness. However, Figure J-2a of Appendix J indicates that an 80-mil HDPE liner will be used. Revise the appropriate sections of the permit application for consistency (i.e., use the actual thickness of the HDPE liner proposed when discussing the design of the concrete base).

PRSOC's Response: *As described above, the entire upgraded portion of the HWSA will be underlain with an HDPE liner. Installation procedures are discussed in Section 3.3.2.4.*

EPA's Response: *Although the facility's response to this comment does not specifically address the concern raised by the comment, the text of the Application (Section 3.3 and the Appendices (J-3 and J-4) have been revised to consistently state or show that the HDPE flexible membrane liner (FML) will have a nominal thickness of no less than 40-mil.*

b. The permit application does not provide any information concerning how the subgrade of the LSA will be prepared to ensure that the foundation of the LSA has

adequate strength to support the concrete pad and the weight of the waste containers and waste handling equipment without excessive settlement that could lead to cracking of the concrete pad. Revise the permit application to describe how the subgrade of the LSA will be prepared and provide an evaluation of the bearing capacity of the subgrade compared to the anticipated total load.

PRSOC's Response: *Section 3.3 of the Application provides the requested information for the entire upgraded portion of the HWSA.*

EPA's Response: *The facility's response to this comment is adequate. The new Section 3.3 and Appendix J-2 provide the requested information.*

c. The permit application does not provide adequate information concerning how the geomembrane will be installed to ensure the integrity of the seams, adequate slopes to prevent ponding of liquids and adequate cover material to prevent damage from the overlying concrete. Revise the permit application to provide a detailed description of the installation procedures for the geomembrane including preparation and inspection of the subgrade to ensure there are no objects present that could damage the liner; surveying of the subgrade to ensure the constructed slopes are appropriate to prevent ponding of liquid on liner; procedures for deployment of liner and seaming; QA/QC testing and placement of a protective layer above the geomembrane.

PRSOC's Response: *Appendix J-4 provides construction procedures for the HDPE liner.*

EPA's Response: *The facility's response to this comment is adequate. Appendix J-4 provides information regarding the installation of the HDPE liner.*

D-1a(3)(b)Container System Drainage: 270.15(a)(2), 264,175(b)(2)

Section 3.4.3 and Figure J-2 of Appendix J indicate that the concrete floor of the LSA will be sloped to drain into a concrete gutter and blind sump. However, neither the text of the application nor Figures J-2 and J-2A describe the maximum and minimum slopes that will be used to construct the concrete floor. Revise the text of the permit application to address this issue and revise Detail A-A' on Figure J-2A to show the elevation of the concrete floor at the edge of the trench and at the base of the four inch curb. Also, provide an east-west cross-sectional drawing of the LSA that depicts elevations of the concrete floor and trench bottom.

PRSOC's Response: *Section 3.3.2.4 and the design drawing presented in Appendix J-3 have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

D-1a(3)(c)Containment System Capacity: 270.15(a)(3), 264.175(b)(3)

The permit application does not provide adequate information and calculations to demonstrate that LSA of the HWSA will have sufficient capacity to contain 10% of the total volume of waste or the volume of the largest container. Section 3.4.3 (page 47) indicates that the combined capacity of the gutter and blind sump are designed to contain 10% percent of the maximum anticipated liquid waste volume and that the maximum storage volume will be 17,000 gallons. However, the permit application does not provide the calculations to demonstrate this containment capacity. Revise the permit application to provide information and calculations that demonstrate that the containment system will have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater. This demonstration must discuss the volume of largest container, total volume of all containers, and calculations of the containment structure capacity that take into account volume displaced by containers, pallets and other structures (e.g., ramps) in the containment system. Also, ensure that the Figures provide all appropriate dimensions and elevations to back-up the calculations.

PRSOC's Response: *Section 3.3.2.4 and the design drawing presented in Appendix J-3 have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

D-1a(3)(e)Removal of Liquids from Containment System: 270.15(a)(5), 264.175(b)(5)

The permit application does not specify the methods for determining whether any liquids and contaminated materials removed from the containment system are hazardous wastes and procedures for handling them as such. Revise Section 3.4.6 of the permit application to describe the methods and procedures that will be used for sampling, analyzing and managing liquids removed from the sump.

PRSOC's Response: *Section 3.3.1 and 3.3.2.4 of the revised Application provide procedures for removing and managing accumulated liquids from the enclosed storage building and the upgraded storage area, respectively.*

EPA's Response: *The facility's response to this comment is partially adequate. The procedures are provided in Section 3.3.2.4. However, these procedures do not discuss how the facility would differentiate between "spilled waste materials" and "accumulated precipitation." Also, there is an inconsistency between what is stated in Sections 3.3.1 and 3.3.2.4 regarding management of accumulated precipitation. Section 3.3.1 states that "Accumulated precipitation is removed immediately upon detection during daily inspections using sorbent material and is disposed of as non-hazardous waste." But,*

Section 3.3.2.4 states that "Accumulated precipitation will be collected by vacuum truck and will be discharged into the Refinery Area 2-Cell Separator for treatment." Please reconcile this discrepancy and provide a sampling and analysis procedure for determining when the accumulated liquid waste in the HWSA is considered "spilled waste material" or "accumulated precipitation."

D-1b(1)Test for Free Liquids: 270.15(b)(1)

Section 3.4.7 of the permit application does not provide an adequate demonstration that the wastes to be stored in the Non-Liquid Storage Area (NLSA) of the HWSA do not and will not contain free liquids. The permit application implies that the presence of free liquids will be initially established with a visual inspection. Visual inspection of wastes is not an acceptable method for establishing free liquid content of wastes. Provide results or other documentation or information to show that the wastes to be stored in the non-liquid container storage area do not contain free liquids. In addition, provide a description of the testing and analysis procedures (including frequency of sampling of waste containers to ensure representative samples are obtained) that will be used to ensure that only wastes without free liquids are managed in the NLSA.

PRSOC's Response: *As described above, the upgraded portion of the HWSA will be underlain by an HDPE liner, thereby allowing liquid waste to be stored anywhere within that portion of the unit. Only non-liquid wastes may be stored in the existing Hazardous Waste Storage Building. Section 3.4 of the revised Application presents information relating to testing of containers for free liquids.*

EPA's Response: *The facility's response to this comment is adequate.*

D-1b(2)Description of Containers: 264.171, 264.172

The permit application does not provide an adequate description of the containers that will be used to manage non-liquid hazardous waste. Section 3.2.2 (page 41) and Section 3.4.2 (pages 46 and 47) indicate that all hazardous waste will be stored in suitable containers such as 55-gallon drums, bags and roll-off dumpsters. However, the permit application does not provide a detailed description of these containers. The facility shall use containers made of or lined with material which well not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired. Also, hazardous waste stored in rusted containers or those with apparent structural defects shall be transferred to a container that is in good condition.

Revise the permit application to provide the following information about the containers used to store hazardous waste: approximate number of each type of container, materials of construction (particularly for the "bags"), dimensions and usable volumes, DOT

specifications or other manufacturer specifications, liner specifications (particularly for the roll-off dumpsters), container condition (new, used, reconditioned), and marking and labels.

PRSOC's Response: *A new section 3.2 has been added to the Application to provide additional information on containers used to store hazardous waste.*

EPA's Response: *The facility's response to this comment is adequate.*

D-1b(3)Container Management Practices: 264.173

Section 3.2.2 of the permit application does not provide an explicit description of how waste containers will be appropriately managed within the HWSA. Revise the permit application to provide a detailed description of the container management practices used to ensure that hazardous waste containers are always kept closed during storage, except when adding or removing waste, and are not opened, handled, or stored in a manner that may cause them to rupture or to leak.

The facility shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. Those holding incompatible wastes shall be separated. Transfer and consolidation of incompatible hazardous wastes should be taken into account Container Management Practices. Please explain to the Agency how you plan to transfer incompatible wastes from one container to another and do you have an established procedure to determine the compatibility of hazardous wastes before storing them within the same container.

PRSOC's Response: *A new section 3.4 has been added to the Application to provide information on container management practices.*

EPA's Response: *The facility's response to this comment is adequate.*

Also, describe the aisle space that will be maintained between rows of containers and explicitly state the maximum number, volume, and stacking height of containers for each area in which containers will be stored.

PRSOC's Response: *Section 3.4 of the Application provides the requested information. In addition, Figure 3-6 illustrates aisle space in the Hazardous Waste Storage Area.*

EPA's Response: *The facility's response to this comment is adequate.*

D-1b(4)Container Storage Area Drainage: 270.15(b)(2), 264.175(c)

Figure J-2 of Appendix J indicates that the concrete floor of the NLSA will be sloped to drain into 12-inch wide trench and a blind sump. However, the text of the application does not discuss this feature of the NLSA, and neither Figures J-2 nor J-2A describe the maximum and minimum slopes that will be used to construct the concrete floor. Revise the text of the permit application to address this issue and provide construction details including east-west and north-south cross-sectional drawings of the NLSA that depict elevations of the concrete floor and trench bottom. Also, provide the construction details of the sump and its volumetric capacity.

PRSOC's Response: *Section 3.3.3.4 and the design drawing presented in Appendix J-3 have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

D-12 SUBPART CC AIR EMISSION STANDARDS (NEW EPA COMMENT)

General Applicability

The application indicates in Sections B, C (including SOP #1) and D of the permit application that Puerto Rico Sun Oil Company (PRSOC) operates a permitted container storage unit. Containers in the container storage unit that store hazardous waste with an average volatile organic concentration at the point of waste origination of greater than 500 parts per million by weight (ppmw), would be subject to the requirement of Subpart CC. In addition, any less than 90-day containers may be subject to the Subpart CC regulations. The application must provide information on all less than 90 day container which may be subject to these requirements, or provide information to demonstrate compliance with the exemption conditions in 264.1082.

Containers

Applicability of Container Standards Level 1-3

The Subpart CC requirements in 40 CFR 264 for containers are organized into three levels. The first level addresses containers which are larger than 26.4 gallons (0.2 m^3) and less than 122 gallons (0.46 m^2) or are larger than 122 gallons and do not manage hazardous waste in light material service. Level 2 containers are larger than 122 gallons and manage hazardous waste in light liquid material service; and Level 3 containers are larger than 26.4 gallons and treat hazardous waste by a stabilization process. According to the PRSOC Part B Permit application the facility manages hazardous waste which may contain volatile organic hazardous waste in concentrations of greater than 500 ppmw. The permit application indicates that PRSOC stores waste in five types of containers, which must comply with either Level 1 or Level 2 container controls.

PRSOC must make a determination as to the container control level (Level 1 or 2) and provide this information as part of the permit application. The application provided by PRSOC indicates that five different types of containers will be utilized for storage at the site; a standard 55-gallon drum with a gross volume capacity of 7.35 cubic yards; a 30 gallon drum with capacity of approximately 4 cubic yards; a roll-off bin with a volume capacity of 27 cubic yards. In addition, fiber, plastic container (no capacity specified) and fiber bags and sacks with a capacity of 1.0 to 1.5 cubic yards may also be used for storage. Based on the information in the permit application, it does not appear that PRSOC has any container subject to Level 3 controls. However, this should be verified in PRSOC's response to comments.

Contained within each level of control (Level 1 and 2) are several alternatives for compliance. PRSOC must provide detailed information on the alternative which will be utilized to meet compliance for containers, for each level. In addition, depending on the alternative selected by PRSOC, specific operating requirements, inspection, record keeping, repair and waste transfer requirements are specified. These requirements must also be addressed in the permit application. A summary of the specific information which must be provided for level 1 and level 2 containers is provided below:

Level 1 Containers: The facility must describe the containers that meet Department of Transportation (DOT) requirements, and specify which specific DOT requirement the container will meet (i.e. Part 178 or Part 179). The facility must also describe how the containers are managed to meet the requirement of DOT Part 107, 172, 173 and 180.

For the Level 1 containers that are equipped with cover and/or closure devices, these cover and closure devices must be described. Inspection procedures used to ensure that there are no gaps, holes, visible spaces or leaks in the container equipped with cover and/or closure devices must be discussed in the application. For Level 1 containers, with covers and/or closure devices the owner/operator must ensure in the application that the cover/closure device is maintained in a closed position except when transferring hazardous waste or when maintenance is performed, or to avoid an unsafe condition. The owner/operator must provide documentation of the inspection of Level 1 containers. Documentation may include, for example, an inspection log form, or a written plan and schedule which is incorporated into the facility inspection plan.

For Level 1 containers, the inspection plan or inspection log form should address the inspections conducted when transferring waste into a containers. This inspection must ensure that the closure devices are in good condition and are closed when transfer is complete. In addition, the Subpart CC inspection of Level 1 containers must include a visual inspection of waste containers if waste is received from off-site sources and unloading can not be completed within 24 hours. The facility must document, for example, by the use of an inspection plan or inspection log form, any repairs or any noted defect.

Level 2 Container: For Level 2 containers which meet DOT requirements, the facility must describe the DOT regulations they meet and how the containers are managed (see Level 1 comment). For Level 2 containers in which Method 21 or 27 is used to demonstrate that there are no detectable organic emissions from the container (Method 21), or that the container is vapor-tight (Method 27). The facility must describe the site specific procedures that will be used.

The application must describe the operating requirements and inspection requirements for Level 2 containers. The operating requirements must include provisions to ensure that the cover/closure device is left in a secure and closed position except when wastes are transferred or maintenance is performed. The operation of safety vents or conservation vents must be described. The inspection requirement for Level 2 container are the same as Level 1 container and these requirements must be fully described and documented in the application. For Level 2 containers, if waste is stored in a containers for greater then one year, then the Level 2 container must be inspected and this inspection documented. The application must provide the procedures for documentation of all inspections.

The waste transfer for Level 2 containers must be described in the application. The waste transfer must be conducted in such a manner as to minimize exposure of waste to the atmosphere, considering the physical properties of the hazardous waste, good engineering and safety practices.

Repair procedures for Level 2 containers must be addressed. The facility must describe how a repair is attempted within 24 hours, and completed within 5 days. If this can not be accomplished then the facility must describe how the container is removed from services.

F. PROCEDURES TO PREVENT HAZARDS

F-1a(3)Warning signs: 264.14(c)

Figure M-2 provides the location of "No Smoking" signs; however, there is no indication if these signs will be in Spanish and English. Also, according to 40 CFR, the location of the facility's "Danger - Unauthorized Individuals Keep Out" should be provided at each entrance to the active portion of the facility and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and any other language predominant in the area surrounding the facility (i.e., Spanish) and must be legible from a distance of at least 25 feet. While these signs are referred to under surveillance System (Section 5.1.3, p. 56), they do not appear on figure M-2. Revise the figure to include the location of these signs (specifically in the area of the HWMF unit) and at what interval they are posted.

PRSOC's Response: *Section 5.1.3 has been revised to provide additional information on warning signs. Also, Figure 3-5 shows the locations of warning signs at the HWSA.*

EPA's Response: *The facility's response to this comment is adequate.*

F-2a General Inspection Requirements: 270.14(b)(5), 264.15(a) and (b), 264.33

The inspection logs provided under General Inspection Requirements, Section 5.2, pp. 59-66 need to be more specific and include the information provided in General Inspection Schedule, Appendix O (e.g., what is to be inspected, the type of problems to look at, frequency of inspections, etc.).

The equipment listed on the Emergency Log Sheet (Appendix M) should include all equipment listed under Spill Control and Response Equipment and Materials, Table 7-1 (e.g., oil spill boats, oil spill vans, oil spill warehouse equipment, and oil spill refinery area). In addition, the Emergency Log Sheets should include the Safety, Emergency, and Communications Equipment listed in Appendix O (e.g., fencing, gate system, warning signs, facility lighting, protective clothing, respirators, shower/eyewash stations, breathing air equipment, emergency lighting, emergency phone systems, and radios used for internal/external communication).

Revise the application to coordinate the General Inspection Requirements (Section 5.2), the information listed under Spill Control and Response Equipment and Materials (Table 7-1), the Emergency Log sheets (Appendix M), the General Inspection Schedule (Appendix O). Describe the frequency of inspection items on the schedule. The frequency of inspection should be based on the rate of possible deterioration of equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, and major features of the site (such as dikes, retention ponds conditions, storage conditions, application rates and general site appearance) must be inspected daily when in use.

PRSOC's Response: *Section 5.2 and Attachment O have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is partially adequate. The inspection information from Appendix M and Appendix O of the previous application has been combined into Appendix O. The Inspection Log for the Hazardous Waste Storage Area has been expanded to include inspection of security devices. However, Appendix O does not provide an example for emergency equipment used at the storage area such as the inspection log sheet for protective clothing, respirators, shower/eyewashes, emergency lighting, and emergency phone systems. Appendix O also does not include inspection of the equipment listed under Spill Control and Response Equipment (Table 7-1 of Appendix U-1). Revise the application to provide this information.*

F-2a(1)Types of Problems: 264.15(b)(3)

List all specific parts of equipment to be individually inspected and the types of problems associated with each individual part. Ensure that the inspection schedule indicates the types of problems to be looked at during an inspection.

PRSOC's Response: *Section 5.2 and Attachment O have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is not adequate since Section 5.2 and Appendix O have not been revised to provide the required information. Revise the application to list all specific parts of equipment to be individually inspected and the types of problems associated with each individual part. Ensure that the inspection schedule indicates the types of problems to be looked at during an inspection.*

F-2b(1)Container Inspection: 264.174

The facility indicates that dumpsters (which contain hazardous waste) are stored in the HWMF; however, these types of containers are not addressed in the General Inspection Requirements (Section 5.2) or in the General Inspection Schedule (Appendix O). In addition to specifying these types of containers, inspection log sheets should also specify frequency of inspection.

The log forms in Contingency Measures (Appendix M) do not appear to have been modified to include the proposed hazardous waste storage area. Likewise, the General Inspection Schedule (Appendix O) does not appear to address the proposed modification.

For example, the document indicates that sprinkler systems are installed in the unit; however, there is no indication of how (or how often) these systems are inspected.

Revise the application to include all units which manage hazardous waste under General Inspection Requirements (Section 5.2), Contingency Measures (Appendix M), and the General Inspection Schedule (Appendix O). Demonstrate that all the containers in the containers storage area will be inspected weekly for leaks, spills, and deterioration caused by corrosion and other factors.

PRSOC's Response: *Section 5.2 and Attachment O have been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

F-3a(3)Emergency Equipment: 264.32(c)

Equipment used in the event of an emergency is listed under Security Measures, Section 5.1, pp. 51-59; Emergency Equipment, Section 7.5, pp. 108-109; the Facility Description (Appendix L); and the Emergency Plan (Appendix U). 40 CFR 264.32 and 264.52(e) require that there be a list of all emergency response equipment. This equipment is inconsistently listed throughout the application. The various sections documenting emergency equipment do not address or include the same equipment. Revise the application so that this information is in one location so that it can be readily available. The emergency equipment information must meet the requirements specified in 40 CFR 24.32 and 264.52(e).

PRSOC's Response: *The requested information has been provided in the revised Contingency Plan.*

EPA's Response: *The facility's response to this comment is adequate.*

F-3b Aisle space requirement: 264.35

A statement regarding aisle space requirements is found under Required Aisle Space, Section 2.6.5, p.31. The statement suggests that details of the spacing amounts are provided in the PRSOC Contingency Plan (Section 7.0); however, none were found. Revise the application to demonstrate that the facility maintains sufficient aisle space to allow the unobstructed movement of personnel, fire protection equipment, or spill control equipment to any area of facility operation in an emergency.

PRSOC's Response: *Section 3.4 has been revised to describe aisle space in the Hazardous Waste Storage Area.*

EPA's Response: *The facility's response to this comment is adequate.*

F-4 Preventive Procedures, Structures, and Equipment: 270.14(b)(8)

Preventive Procedures, Structures, and Equipment is covered in Sections 2.1 through 2.4, pp. 20-23; however, the application should address more than just inspection of equipment. A preventive maintenance program should also be addressed. Revise the application to include preventive maintenance operations.

PRSOC's Response: *Section 2.3 of the Application has been revised to provide a general overview of PRSOC's preventive maintenance program.*

EPA's Response: *The facility's response to this comment is adequate.*

F-4a Unloading Operations: 270.14(b)(8)(I)

Unloading operations are described under Preventive Procedures, Structures, and Equipment, Section 2.1, p. 20. More detailed information should be provided in describing the loading and unloading of containers. For example, different types of containers are unloaded in the hazardous waste management unit, and therefore, would require different loading/unloading operations (i.e., the use of dumpsters, containers, bags, etc.). The application should include how the larger dumpsters are handled, how frequently the containers are moved, if the containers are moved on pallets, or are individual containers moved, what type of equipment other than forklifts are used to load/unload containers, and what is meant by the term "other suitable means". Revise the application to provide a more detailed description of the loading and unloading of containers.

PRSOC's Response: *Section 2.1 of the Application has been revised to provide a general overview of PRSOC's loading and unloading operations.*

EPA's Response: *The facility's response to this comment is adequate.*

F-4d Equipment and Power Failure: 270.14(b)(8)(iv)

Under Preventive Procedures, Structures, and Equipment, Section 2.3, p.22, the application states that power outages are minimized during high-peak usages; however, no further explanation or justification is provided. Revise the application to provide more detailed information on power outages and the procedures which are implemented during these events.

PRSOC's Response: *Section 2.3 of the Application has been revised to provide further information on power outages.*

EPA's Response: *The facility's response to this comment is adequate.*

F-4e Personnel Protective Equipment: 270.14(b)(8)(v)

Personnel protective equipment is briefly listed in Section 2.4, pp. 22-23 and in Section 7.5, p. 108. Revise the application to fully describe the procedures, structures, or equipment used to prevent undue exposure of personnel to hazardous waste.

PRSOC's Response: *Section 2.4 of the Application has been revised to provide further information on protection of personnel.*

EPA's Response: *The facility's response to this comment is adequate.*

F-5 Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste 270.14(b)(9)

Under Preventive Procedures, Structures, and Equipment, Section 2.3, p.22, the application indicated that a gas-operated pump will be used during a power outage. Revise the application to explain how a gas-operated pump can be safely used in a storage area with wastes which are ignitable petroleum products.

PRSOC's Response: *Section 2.3 of the Application has been revised to provide further information on power outages.*

EPA's Response: *The facility's response to this comment is adequate.*

G. CONTINGENCY PLAN:

G-1 General Information

The facility has provided several documents which address emergency response, including a Contingency Plan section (Section 7.0); Contingency Measures (Appendix M); the Emergency Plan (Appendix U); Emergency Implementing Procedure Notification and Call List (Appendix V); the Emergency Action Evacuation Plan (Appendix W); the Emergency Response Brigade (Appendix X); and the Contingency Plan (separate volume). These documents are not consistent. For example, the Emergency Plan mentions titles such as On-scene Coordinator, Incident Commander, Shift Supervisor, etc. These titles, and others, are not addressed in the Contingency Plan. The Contingency Plan refers to the Emergency Operator's Manager, Emergency Manager, Material Advisor, etc. Other examples include criteria used to determine response action, etc. Revise the application so that all documents detailing response in the event of an emergency consistently address the measures to be taken.

PRSOC's Response: *The Contingency Plan has been revised to ensure consistency between the referenced documents. To clarify this, previous Appendices U, V, W, X and Y have been deleted and are now attachments to the RCRA Contingency Plan which is now the new Appendix U.*

EPA's Response: *The facility's response to this comment is adequate.*

G-2 Emergency Coordinators: 264.52(d), 264.55

It does not appear that the Contingency Plan or the Emergency Plan specifies someone with the authority to commit the resources needed to carry out the Contingency Plan as required in 40 CFR 264.55. This authority is further confused since individual titles in the contingency Plan, the Emergency Response Plan, etc. are not consistent. The plans use several different titles and none of the individuals are specified as the "Emergency Coordinator" (40 CFR 264.55) or "Alternate Emergency Coordinators." Revise the

application such that all documents which detail response in the event of an emergency clearly and consistently specify lines of authority. In particular, provide the names, addresses, office and home phone numbers, and duties of primary and alternate coordinators and statements of authorization of coordinator to commit necessary resources in the event of an emergency.

PRSOC's Response: *Titles of individual response members in the contingency Plan have been revised to correspond to their titles in other PRSOC response documents. The "Emergency Coordinator" is referred to as "On-Scene Coordinator" in the plan for the purpose of maintaining consistency between the various PRSOC response plans. Section 3.0 of the Contingency Plan provides relevant information on the primary and alternate coordinators as well as stating their ability to carry out the procedures of the Contingency Plan.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4 Emergency Actions: 264.56

Several teams are specified in the Contingency Plan including the "Emergency Response Brigade" and the "Initial Response Team". The roles and responsibilities of these teams need to be clearly set forth. Revise the application such that the roles and responsibilities of all teams activated in the event of an emergency are clearly defined.

PRSOC's Response: *Section 2.0 and Attachment A of the Contingency Plan provide information on the roles and responsibilities of these response teams.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4a Notification: 264.56(a)

Procedures of notification are addressed under Coordination with Local Authorities, Section 7.2, pp. 97-98; in Emergency Plan Procedures, Section 7.7, pp. 111-114; and in the Emergency Plan (Appendix U). Emergency procedures to notify facility personnel and state and local authorities should be more specific. For example, an alarm for evacuation is specified. What is the type of alarm? Is the alarm sounded differently for different types of emergencies? Is the alarm sounded differently in different locations in the plant? Etc. Revise the application to specifically step through the notification procedures for facility personnel and state and local authorities.

PRSOC's Response: *Section 4.1 of the Contingency Plan outlines notification procedures for facility personnel and state and local authorities.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4b Identification of Hazardous Materials: 264.56(b)

In Reporting and Requesting Help, Section 7.7.3, pp. 113-114, procedures for reporting an emergency are outlined. These are also outlined in the emergency Plan (Appendix U) and in the Contingency Plan (separate volume, Section 8.3). However, the plans do not specifically detail the procedures identification of hazardous materials involved in the emergency. Revise the application to more fully describe the procedures implemented to identify hazardous materials released in the event of an emergency.

PRSOC's Response: *Section 4.2.1 of the Contingency Plan provides information on the identification of hazardous wastes involved in a release, fire or explosion.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4c Assessment: 264.56(c), 264.56(d)

Identify the specific steps that a qualified individual or designee will take in assessing possible hazards to human health and the environment that may result from a release, fire, or explosion. Include a discussion of the methodology that will be used to assess direct and indirect effects and the effects of wastes generated during emergency response efforts.

PRSOC's Response: *Section 4.2.2 of the Contingency Plan provides information on the procedures for assessing possible hazards to human health, direct and indirect effects, and effects of wastes generated during emergency response efforts.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases: 264.56(e)

Revise the contingency plan (Section 7.0) to outline the steps that will be taken to prevent a recurrence or spread of fires, explosions or releases.

PRSOC's Response: *Section 4.4 of the Contingency Plan presents an outline of these procedures.*

EPA's Response: *The facility's response to this comment is adequate.*

G-4h Post-Emergency Equipment Maintenance: 264.56(h)(2)

Provide a more detailed discussion on how all emergency equipment, if used, will be cleaned, repaired, or restocked before operations are resumed. Indicate the steps that will be taken to ensure that all of these tasks have been completed.

PRSOC's Response: *Section 4.2.2 of the Contingency Plan provides information on the steps to be taken.*

EPA's Response: *The facility's response to this comment is adequate. The actual location of the required information is Section 4.4.6.*

G-5 Emergency Equipment: 264.32(e)

In Access to Communications or Alarm Systems, Section 2.6.4, p.30, the application states that "Specific details concerning emergency communications and alarm systems are provided in the PRSOC Contingency Plan (see Section 7.0)." However, specific details concerning emergency communications and alarm systems were not found in the Contingency Plan, Section 7.0, pp. 96-125. Revise the application to include specific details in the use of communications and alarm systems in the event of an emergency.

PRSOC's Response: *Section 4.1 and 6.0 of the Contingency Plan provide information on PRSOC's emergency alarm and communication systems.*

EPA's Response: *The facility's response to this comment is adequate.*

G-6 Coordination Agreements: 264.52(c), 264.37

In Coordination with Local Authorities, Section 7.2, pp. 97-98 and in Emergency Implementation Procedure Notification and Call List (Appendix V), the facility does not provide actual documentation of the coordination agreements that are in place, only names and phone numbers are supplied. Revise the application to include the coordination agreements with local police and fire departments, hospitals, contractors, and state and local emergency response teams which familiarize them with the facility and actions needed in case of emergency. Document if there is a refusal to enter into a coordination agreement.

PRSOC's Response: *Section 7.0 of the Contingency Plan provides information on proposed coordination agreements with local and federal government agencies. Upon EPA approval of the plan, the plan will be forwarded to each authority listed in Section 7. Documentation of final agreements, or of any authorities refusal to enter into an agreement, will be forwarded to EPA upon receipt.*

EPA's response: *The facility's response to the comment is not adequate. The application still does not provide documentation which demonstrates that each of the hospitals, contractors, and local and federal agencies that will respond to PRSOC in the event of an emergency agree to provide the appropriate level of support. Revise the application and provide a letter from each of these organizations. Confirm that the organization is willing to provide support and briefly describe the actions that will be undertaken.*

H. PERSONNEL TRAINING:

H-1 Outline of the Training Program: 264.16(a)(1)

In Personnel Training, Section 8.0, pp. 126-129, the application does not provide information on the duration of time for the annual training or for the initial training. Revise the application to specify the amount of time spent on each segment of training.

PRSOC's Response: *Section 8.0 of the Application has been revised to provide the requested information.*

EPA's Response: *The facility's response to this comment is adequate.*

H-1e Training for Emergency Response: 264.16(a)(3)

Training Programs, Section 8.1, pp. 129-135 does not provide details of training for emergency personnel; however, some of this information can be found in the Emergency Plan (Appendix U). Additionally, personnel specified in the Hazardous Waste Handling Employees List (Appendix Z) only addresses hazardous waste personnel and does not include personnel who may be called upon to respond to a hazardous waste incident. Revise the application to include specific training for emergency personnel. Revise the application's training plan to include all job titles and descriptions for personnel that may be involved in emergency response at the RCRA unit(s).

PRSOC's Response: *Job titles of PRSOC employees involved in emergency response activities are presented in Table 8-1. Most emergency response personnel at PRSOC are full-time employees with other job descriptions. Emergency response is only a part-time duty. A job description for the Emergency Response Supervisor, which is a full time position, is included in Appendix Z.*

EPA's Response: *The facility's response to the comment is partially adequate. The revised application did not include a Table 8-1 as stated in the response. Revise the application to include Table 8-1.*

Demonstrate that facility personnel are able to respond effectively to emergencies and are familiar with emergency procedures, emergency equipment, and emergency systems. The training program should include the following:

- Procedures for Using, Inspecting, Repairing, and Replacing Facility Emergency and Monitoring Equipment;
- Communications and Alarm Systems;
- Response to Fires; and
- Shutdown of Operations.

PRSOC's Response: *A new Section 8.3 has been added to the Application which describes the training for emergency response personnel.*

EPA's Response: *The facility's response to this comment is adequate.*

I. CLOSURE PLANS, POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS:

I-1 Closure Plans: 270.14(b)(13), 264.112(a)(1) and (2)

Sections 9.3, 9.4, and 9.5, pp. 145-168 outline Closure Activities, Clean-up Levels, and General Field Activities. Universal Treatment Standard and Toxicity Characteristic Leachate Procedure (TCLP) is not to be use as clean-up levels or used as closure performance standards. The extraction procedure (EP) and TCLP were developed to provide a reasonable leaching procedure and concentration limits for defining "hazardous wastes." Wastes which leach constituents at concentrations less than the limits are not regulated as hazardous wastes (if they are not listed F or K wastes). That is the only use defined and accepted by EPA for data from the EP and TCLP tests. As stated in the Federal Register preamble accompanying the final TCLP rule:

> "...the TC levels will be either action levels (i.e., concentrations that, if exceeded, signal the need for corrective action) nor cleanup standards. Rather, corrective action, as a process, encompasses trigger levels and cleanup standards that are developed form site-specific information gathered during the investigatory and evaluative phases of the process (i.e., the RCRA Facility Investigation and Corrective Measures Study).
>
> Thus, the levels or concentrations associated with today's TC rule are largely independent from levels associated with correction action."
> (55 FR 11834, March 29, 1990)

Revise the application using background or risk-based standards in the closure plan.

PRSOC's Response: *Sections 9.4 and 9.5 of the Closure Plan have been revised to incorporate risk-based cleanup criteria.*

EPA's Response: *The facility's response to this comment is partially adequate. Section 9.4.1 (page 9-8) of the application indicates that PRSOC is proposing the use of the U.S. EPA Region 3 risk-based concentrations (RBCs) for industrial exposure scenario. If PRSOC intends to use the industrial scenario RBCs as a closure standard for the HWSA, then revise the application to refer to the closure of the HSWA as a "non-residential clean closure" to ensure that the public is aware of the exposure assumptions being applied for the unit. Also, the revise application should include information which shows that the site-specific conditions at the facility consistent with the default assumptions*

used to drive the EPA Region 3 RBCs. In addition, submit information showing that the proposed closure criteria will be protective of ecological receptors and will minimize the potential for groundwater contamination.

I-5 Financial Assurance Mechanism for Closure: 270.14(b)(15), 264.142

The financial assurance mechanism for closure is outlined in Financial Assurance for Closure and Financial Test and Corporate Guarantee for Closure Sections 9.9, 9.10, pp. 173-175; in Cost Estimate Data (Appendix BB); and in Financial Assurance (Appendix CC); however, the most recent financial assurance instrument is not provided. The instrument which is provided is several years out of date. In addition, the financial assurance for closure does not appear to include the cost of the "new modifications" to the storage areas.

PRSOC's Response: *The latest financial assurance instrument is being updated and will be forwarded to EPA under separate cover. This instrument will reflect the cost of closure of the storage area with all modifications (as reflected in the closure cost estimate, Section 9.7 of the Application). Also, please note that the financial assurance instrument was current when submitted.*

EPA's Response: *The facility submitted a financial assurance packge dated September 10, 1998 which is currently under review.*

Also, the financial instrument provided in the attachments includes a post-closure estimate. It appears that the surface impoundment undergoing closure is still included in the financial instruments, therefore, an explanation as to exactly what units are covered by the financial instruments should be provided. A cost estimate for the impoundment should also be provided so a determination can be made if sufficient funds are available for both units. Provide the most recently established financial assurance instrument for closure, including the cost of new modifications to the storage areas in the financial assurance for closure. Provide an explanation of exactly what units are covered by the financial instrument, including a cost estimate for the impoundment.

PRSOC's Response: *Updated financial assurance documentation to be provided in Attachment B will apply to both the HWSA and to PRSOC's equalization basin, which is out of service and is currently undergoing closure. However, all closure activities associated with the equalization basin are complete. Therefore, the current cost estimate for closure activities to be provided in Attachment BB will apply only to the HWSA. The current cost estimate for post-closure activities to be provided in Attachment BB will apply only to the equalization basin. (Although PRSOC is seeking a clean closure for the equalization basin, financial assurance for post-closure care is being provided as a contingency.)*

EPA's Response: *The facility submitted a financial assurance packge dated September*

10, 1998 which is currently under review.

I-8 Liability Requirements: 270.14(b), 264.147

The Liability Requirements are outlined in Section 9.11, pp. 175-177. On p. 175, the facility states that, "The PRSOC Certificate of Liability is currently being amended and will be forwarded to the USEPA as soon as possible." The certification of liability insurance currently found in Certification of Liability Insurance (Appendix DD) is dated August 1994. Provide copies of the most recent required items documenting compliance with applicable liability requirements for sudden and nonsudden accidental occurrences.

PRSOC's Response: *The latest financial assurance instrument demonstrating compliance with liability insurance requirements is being updated and will be forwarded to EPA under separate cover. It should be noted that nonsudden liability insurance is not required for the HWSA, only for the equalization basin (which is a land disposal unit) and only until certification that closure is complete.*

EPA's Response: *The facility's response to this comment is not adequate. The September 10, 1998 submittal did not include copies of the most recent certification of liability insurance for sudden accidental occurrences. Provide the requested information.*